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PN - JP9019778 A 19970121
TI - LASER WELDING METHOD FOR ALUMINUM ALLOY WITHOUT EXPOSING MOLTEN METAL ON THE REAR SURFACE
AB - PROBLEM TO BE SOLVED: To obtain through laser welding a sound weld zone with blowhole defects suppressed.
SOLUTION: In the laser welding of an aluminum alloy in which molten metal is unexposed in the rear surface in a weld zone, a weld bead is formed which has a penetration depth ratio (aspect ratio) of 0.9 or less against the bead width. In welding a material having a large thickness, an upper plate is used which is provided with a groove that enlarges a penetration depth. Residual foams are reduced by minimizing the aspect ratio to 0.9 or less, enabling a weld zone to be obtained with a satisfactory mechanical characteristics.
FI - B23K103/10; B23K26/00&310E; B23K26/00&310G; B23K26/00&310S; B23K26/14; B23K26/20&310E; B23K26/20&310G; B23K26/32; B23K33/00&Z
PA - NIPPON LIGHT METAL CO; NIPPON STEEL CORP
IN - HOTTA MOTOJI; HINO HARUMICHI; OIKAWA HATSUHIKO; SAITO TORU
AP - JP19950188050 19950702
PR - JP19950188050 19950702
DT - I

DWPI / DERWENT

AN - 1997-140044 [13]
TI - Laser welding aluminium alloy - involves forming weld lead of specified penetration depth to bead width.
AB - J09019778 Laser welding of Al alloy comprises forming weld bead having 0.9 or less of ratio of penetration depth to bead width.
- ADVANTAGE - No blow hole caused by bubble inclusion is formed.
- (Dwg.0/15)
IW - LASER WELD ALUMINIUM ALLOY FORMING WELD LEAD SPECIFIED PENETRATE DEPTH BEAD WIDTH
PN - JP9019778 A 19970121 DW199713 B23K26/00 008pp
IC - B23K26/00 ;B23K26/14 ;B23K33/00 ;B23K103/10
MC - M23-D05
DC - M23 P55
PA - (NIMI) NIPPON LIGHT METAL CO
- (YAWA) NIPPON STEEL CORP
AP - JP19950188050 19950702
PR - JP19950188050 19950702

PAJ / JPO

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I - B23K26/00 ;B23K26/14 ;B23K33/00
SI - B23K103/10
PA - NIPPON LIGHT METAL CO LTD;NIPPON STEEL CORP
IN - HOTTA MOTOJI;HINO HARUMICHI;OIKAWA HATSUHIKO;SAITO TORU
ABD - 19970530
ABV - 199705
AP - JP19950188050 19950702